

SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT: Dasseux, Jean-Louis  
Sekul, Renate  
Buttner, Klaus  
Cornut, Isabelle  
Metz, Gunther
- (ii) TITLE OF THE INVENTION: APOLIPOPROTEIN A-I AGONISTS  
AND THEIR USE TO TREAT DYSLIPIDEMIC DISORDERS
- (iii) NUMBER OF SEQUENCES: 254
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: Pennie & Edmonds LLP
  - (B) STREET: 1155 Avenue of the Americas
  - (C) CITY: New York
  - (D) STATE: NY
  - (E) COUNTRY: USA
  - (F) ZIP: 10036-2811
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: Diskette
  - (B) COMPUTER: IBM Compatible
  - (C) OPERATING SYSTEM: DOS
  - (D) SOFTWARE: FastSEQ Version 2.0
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER: 08/940,093
  - (B) FILING DATE: 29-SEP-1997
  - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
  - (A) APPLICATION NUMBER:
  - (B) FILING DATE:
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: Coruzzi, Laura A
  - (B) REGISTRATION NUMBER: 30,742
  - (C) REFERENCE/DOCKET NUMBER: 009196-0006-999
- (ix) TELECOMMUNICATION INFORMATION:
  - (A) TELEPHONE: 650-493-4935
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  - (C) TELEX: 66141 PENNIE

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: None
- (ix) FEATURE:
  - (A) NAME/KEY: Other
  - (B) LOCATION: 16
  - (D) OTHER INFORMATION: Xaa = Naphthylalanine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Xaa  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 23 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Gly Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys Lys  
20

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Trp  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 23 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1
- (D) OTHER INFORMATION: Xaa = D-Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Xaa Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys Lys  
20

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Pro Val Leu Asp Leu Phe Lys Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Pro Val Leu Asp Leu Phe Arg Glu Leu Gly Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 17
- (D) OTHER INFORMATION: Xaa = Naphthylalanine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Xaa Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Pro Val Leu Asp Leu Phe Lys Glu Leu Leu Gln Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid

(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Gly Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Gly Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other  
(B) LOCATION: 18  
(D) OTHER INFORMATION: Xaa = Orn

(A) NAME/KEY: Other  
(B) LOCATION: 20  
(D) OTHER INFORMATION: Xaa = Orn

(A) NAME/KEY: Other  
(B) LOCATION: 22  
(D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Xaa Gln Xaa Leu Xaa  
20

(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid

- (C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

Pro Val Leu Asp Leu Phe Arg Glu Leu Trp Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

Pro Val Leu Asp Leu Leu Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Pro Val Leu Glu Leu Phe Lys Glu Leu Leu Gln Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Gly Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1
- (D) OTHER INFORMATION: Xaa = D-Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Xaa Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:20:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Pro Val Leu Asp Leu Phe Arg Glu Gly Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1
- (D) OTHER INFORMATION: Xaa = D-Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

Xaa Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:22:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Gly  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

Pro Leu Leu Glu Leu Phe Lys Glu Leu Leu Gln Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Pro Val Leu Asp Phe Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:26:



- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Leu  
 1                      5                      10                      15  
 Leu Lys Gln Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:27:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 14
- (D) OTHER INFORMATION: Xaa = Naphthylalanine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Xaa Glu Ala  
 1                      5                      10                      15  
 Leu Lys Gln Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:28:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Trp Glu Ala  
 1                      5                      10                      15  
 Leu Lys Gln Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:29:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

Ala Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:30:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None
- (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...22
- (D) OTHER INFORMATION: N-terminal dansylated peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None
- (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

Pro Val Leu Asp Leu Phe Leu Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:32:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None
- (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Xaa Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:33:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

Pro Val Leu Asp Leu Phe Arg Glu Lys Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:34:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 5
- (D) OTHER INFORMATION: Xaa = Naphthylalanine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

Pro Val Leu Asp Xaa Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:35:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

Pro Val Leu Asp Trp Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:36:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

Pro Leu Leu Glu Leu Leu Lys Glu Leu Leu Gln Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:37:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

Pro Val Leu Asp Leu Phe Arg Glu Trp Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:38:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Trp Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:39:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Ala

1  
Leu Lys Lys Lys Leu Lys  
20

5

10

15

(2) INFORMATION FOR SEQ ID NO:40:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

Pro Val Leu Asp Leu Phe Asn Glu Leu Leu Arg Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:41:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 13  
(D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

Pro Val Leu Asp Leu Trp Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:42:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 13  
(D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Trp Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:43:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Trp Glu Xaa Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:44:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...22
- (D) OTHER INFORMATION: All genetically encoded amino acids  
are in the D-configuration

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:45:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:46:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

Pro Val Leu Asp Leu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:47:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala Leu  
1 5 10 15  
Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:48:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1
- (D) OTHER INFORMATION: Xaa = D-Pro

- (A) NAME/KEY: Other
- (B) LOCATION: 2
- (D) OTHER INFORMATION: Xaa = D-Val

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

Xaa Xaa Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:49:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

Pro Val Leu Asp Leu Phe Arg Asn Leu Leu Glu Lys Leu Leu Glu Ala  
1 5 10 15  
Leu Glu Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:50:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Trp Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:51:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

Pro Val Leu Asp Leu Phe Trp Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15



Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:52:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

Pro Val Trp Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:53:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

Val Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:54:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Trp Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:55:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

Pro Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala Leu Lys Gln  
1 5 10 15  
Lys Leu Lys

(2) INFORMATION FOR SEQ ID NO:56:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Lys Lys  
20

(2) INFORMATION FOR SEQ ID NO:57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

Pro Val Leu Asp Leu Phe Arg Asn Leu Leu Glu Glu Leu Leu Lys Ala  
1 5 10 15  
Leu Glu Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu  
20

(2) INFORMATION FOR SEQ ID NO:59:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

```

Leu Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:60:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

```

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala
 1           5           10           15
Leu Lys Gln

```

(2) INFORMATION FOR SEQ ID NO:61:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

```

Pro Val Leu Asp Glu Phe Arg Trp Lys Leu Asn Glu Xaa Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:62:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other

(B) LOCATION: 13  
(D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

Pro Val Leu Asp Glu Trp Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:63:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other  
(B) LOCATION: 13  
(D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

Pro Val Leu Asp Phe Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:64:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other  
(B) LOCATION: 13  
(D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:

Pro Trp Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:65:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 12
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:

Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala Leu  
 1 5 10 15  
 Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:66:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

Pro Val Leu Asp Leu Phe Arg Asn Leu Leu Glu Glu Leu Glu Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:67:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:

Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala Leu  
 1 5 10 15  
 Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:68:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:

Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Lys Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys

## (2) INFORMATION FOR SEQ ID NO:69:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

```

Pro Val Leu Asp Glu Phe Arg Lys Lys Leu Asn Glu Xaa Leu Glu Ala
 1           5           10          15
Leu Lys Gln Lys Leu Lys
                20

```

## (2) INFORMATION FOR SEQ ID NO:70:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:

```

Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Tyr Glu Xaa Leu Glu Ala
 1           5           10          15
Leu Lys Gln Lys Leu Lys
                20

```

## (2) INFORMATION FOR SEQ ID NO:71:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 14
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:

```

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Leu Xaa Glu Ala

```

1  
Leu Lys Gln Lys Leu Lys  
20

5

10

15

(2) INFORMATION FOR SEQ ID NO:72:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Xaa Leu Trp Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:73:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:

Pro Val Leu Asp Glu Phe Trp Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:74:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:

Pro Val Leu Asp Lys Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:75:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:76:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:

Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Phe Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:77:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Lys Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20



(2) INFORMATION FOR SEQ ID NO:78:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:78:

```
Pro Val Leu Asp Glu Phe Arg Asp Lys Leu Asn Glu Xaa Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
 20
```

(2) INFORMATION FOR SEQ ID NO:79:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:79:

```
Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
 20
```

(2) INFORMATION FOR SEQ ID NO:80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:

```
Pro Val Leu Asp Leu Phe Glu Arg Leu Leu Asn Glu Leu Leu Glu Ala
 1           5           10           15
Leu Gln Lys Lys Leu Lys
 20
```

(2) INFORMATION FOR SEQ ID NO:81:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Trp Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:82:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 20 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None
- (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 11
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:

Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala Leu Lys  
 1 5 10 15  
 Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:83:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None
- (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Trp Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:84:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:85:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

Pro Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala Leu  
1 5 10 15  
Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:86:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

Pro Val Leu Glu Leu Phe Glu Arg Leu Leu Asp Glu Leu Leu Asn Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:87:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...22
- (D) OTHER INFORMATION: All amino acids are in the D-configuration

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

Pro Leu Leu Glu Leu Leu Lys Glu Leu Leu Gln Glu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:88:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

```

Pro Val Leu Asp Lys Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20
  
```

(2) INFORMATION FOR SEQ ID NO:89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

```

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Trp Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20
  
```

(2) INFORMATION FOR SEQ ID NO:90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 10
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

```

Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala Leu Lys Gln
 1           5           10           15
Lys Leu Lys
  
```

(2) INFORMATION FOR SEQ ID NO:91:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:92:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:

Pro Val Leu Asp Glu Phe Arg Glu Leu Tyr Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:93:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Lys Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:94:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Ala Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:95:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Leu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:96:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...22
- (D) OTHER INFORMATION: All genetically encoded amino acids  
are in the D-configuration

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:97:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 15 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:98:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Glu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:99:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:

Lys Leu Lys Gln Lys Leu Ala Glu Leu Leu Glu Asn Leu Leu Glu Arg  
1 5 10 15  
Phe Leu Asp Leu Val Pro  
20

(2) INFORMATION FOR SEQ ID NO:100:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 1...22  
(D) OTHER INFORMATION: All amino acids are in the D-configuration

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:101:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Trp Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:102:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Leu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Glu Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:103:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:

Pro Val Leu Asp Glu Phe Arg Glu Leu Leu Asn Glu Glu Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20



(2) INFORMATION FOR SEQ ID NO:104:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:

Pro Leu Leu Asn Glu Leu Leu Glu Ala Leu Lys Gln Lys Leu Lys  
1                      5                      10                      15

(2) INFORMATION FOR SEQ ID NO:105:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:

Pro Ala Ala Asp Ala Phe Arg Glu Ala Ala Asn Glu Ala Ala Glu Ala  
1                      5                      10                      15  
Ala Lys Gln Lys Ala Lys  
20

(2) INFORMATION FOR SEQ ID NO:106:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:

Pro Val Leu Asp Leu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Ala  
1                      5                      10                      15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:107:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...22
- (D) OTHER INFORMATION: All amino acids are in the D-configuration

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:

Lys Leu Lys Gln Lys Leu Ala Glu Leu Leu Glu Asn Leu Leu Glu Arg  
 1 5 10 15  
 Phe Leu Asp Leu Val Pro  
 20

(2) INFORMATION FOR SEQ ID NO:108:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:

Pro Val Leu Asp Leu Phe Arg Trp Leu Leu Asn Glu Xaa Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Arg Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:110:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

- (A) NAME/KEY: Other
- (B) LOCATION: 14
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Xaa Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:111:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:111:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Trp Glu Xaa Trp Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:112:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None  
 (ix) FEATURE:

- (A) NAME/KEY: Other  
 (B) LOCATION: 13  
 (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:112:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Ser Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:113:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:113:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Pro Leu Glu Ala  
 1 5 10 15  
 Leu Lys Gln Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:114:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:114:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Met Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Lys Lys  
20

(2) INFORMATION FOR SEQ ID NO:115:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:115:

Pro Lys Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:116:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:116:

Pro His Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys

## (2) INFORMATION FOR SEQ ID NO:117:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:117:

```

Pro Glu Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20

```

## (2) INFORMATION FOR SEQ ID NO:118:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 13
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:118:

```

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Xaa Leu Glu Ala
 1           5           10           15
Leu Glu Gln Lys Leu Lys
                20

```

## (2) INFORMATION FOR SEQ ID NO:119:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 17
- (D) OTHER INFORMATION: Xaa = Aib

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:119:

```

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Ala

```

1  
Xaa Lys Gln Lys Leu Lys  
20

5

10

15

(2) INFORMATION FOR SEQ ID NO:120:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 16
- (D) OTHER INFORMATION: Xaa = Aib

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:120:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Xaa  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:121:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:121:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Ala  
1 5 10 15  
Leu Trp Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:122:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:122:

Pro Val Leu Asp Glu Phe Arg Glu Lys Leu Asn Glu Glu Leu Glu Trp  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:123:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

Gln Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:124:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 18
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 20
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 22
- (D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:124:

Pro Val Leu Asp Leu Phe Xaa Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Xaa Gln Xaa Leu Xaa  
20

(2) INFORMATION FOR SEQ ID NO:125:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:125:

Asn Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:126:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:126:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Gly Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:127:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:127:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Leu  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:128:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:128:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Phe  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:129:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:129:

Pro Val Leu Glu Leu Phe Asn Asp Leu Leu Arg Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:130:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid



(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:130:

Pro Val Leu Glu Leu Phe Asn Asp Leu Leu Arg Glu Leu Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:131:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:

Pro Val Leu Glu Leu Phe Lys Glu Leu Leu Asn Glu Leu Leu Asp Ala  
1 5 10 15  
Leu Arg Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:132:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:132:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Asn Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:133:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:133:

Pro Val Leu Glu Leu Phe Glu Arg Leu Leu Glu Asp Leu Leu Gln Ala  
1 5 10 15  
Leu Asn Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:134:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:134:

```

Pro Val Leu Glu Leu Phe Glu Arg Leu Leu Glu Asp Leu Leu Lys Ala
 1           5           10           15
Leu Asn Gln Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:135:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:135:

```

Asp Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:136:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:136:

```

Pro Ala Leu Glu Leu Phe Lys Asp Leu Leu Gln Glu Leu Leu Glu Ala
 1           5           10           15
Leu Lys Gln Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:137:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 17
- (D) OTHER INFORMATION: Xaa = Naphthylalanine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:137:

```

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala
 1           5           10           15

```

Xaa Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:138:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:138:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Trp  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:139:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:139:

Pro Val Leu Asp Leu Phe Arg Glu Leu Trp Asn Glu Gly Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:140:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 18  
(D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other  
(B) LOCATION: 20  
(D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other  
(B) LOCATION: 22  
(D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:140:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
1 5 10 15

Leu Xaa Gln Xaa Leu Xaa  
20

(2) INFORMATION FOR SEQ ID NO:141:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:141:

Pro Val Leu Asp Phe Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:142:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:142:

Pro Val Leu Glu Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:143:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 1...22  
(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:143:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Gly Leu Glu Ala  
1 5 10 15  
Leu Lys Gln Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:144:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

(A) NAME/KEY: Other  
(B) LOCATION: 1  
(D) OTHER INFORMATION: Xaa = D-Pro

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:144:

Xaa Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:145:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:145:

Gly Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:146:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:146:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:147:

(i) SEQUENCE CHARACTERISTICS:

```

/ SEQUENCE CHARACTERISTICS
(A) LENGTH: 22 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

```

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:147:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Phe Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:148:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:148:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Gly Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:149:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:149:

Pro Val Leu Glu Leu Phe Glu Asn Leu Trp Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:150:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:150:

Pro Leu Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:151:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:151:

Pro Val Leu Glu Leu Phe Glu Asn Leu Gly Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:152:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:152:

Pro Val Phe Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:153:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:153:

Ala Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:154:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:154:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Gly Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:155:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:155:

Pro Val Leu Glu Leu Phe Leu Asn Leu Trp Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:156:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:156:

Pro Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:157:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:157:

Pro Val Leu Glu Phe Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:158:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:158:

Pro Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Arg Leu Leu Asp Trp  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:159:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:159:

Pro Val Leu Asp Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:160:



- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:160:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Trp  
 1                      5                      10                      15  
 Leu Gln Lys Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:161:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:161:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Glu Ala  
 1                      5                      10                      15  
 Leu Gln Lys Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:162:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:162:

Pro Val Leu Glu Leu Phe Glu Asn Trp Leu Glu Arg Leu Leu Asp Ala  
 1                      5                      10                      15  
 Leu Gln Lys Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:163:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:163:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Trp Asp Ala  
 1                      5                      10                      15  
 Leu Gln Lys Lys Leu Lys  
                     20

(2) INFORMATION FOR SEQ ID NO:164:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:164:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Trp Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:165:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:165:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Leu  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:166:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:166:

Pro Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Lys Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:167:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 22 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:167:

Pro Val Leu Glu Leu Phe Glu Asn Gly Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:168:

(ii) MOLECULE TYPE: None

Pro Val Leu Glu Leu Phe Glu Gln Leu Leu Glu Lys Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Lys Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:170:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other  
(B) LOCATION: 12  
(D) OTHER INFORMATION: Xaa = Orn

(A) NAME/KEY: Other  
(B) LOCATION: 19  
(D) OTHER INFORMATION: Xaa = Orn

(A) NAME/KEY: Other  
(B) LOCATION: 20  
(D) OTHER INFORMATION: Xaa = Orn

(A) NAME/KEY: Other  
(B) LOCATION: 22  
(D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:170:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Xaa Leu Leu Asp Ala  
1 5 10 15

Leu Gln Xaa Xaa Leu Xaa  
20

(2) INFORMATION FOR SEQ ID NO:171:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:171:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Lys Leu Leu Asp Leu  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:172:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:172:

Pro Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Arg Leu Gly Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:173:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:173:

Pro Val Leu Asp Leu Phe Asp Asn Leu Leu Asp Arg Leu Leu Asp Leu  
1 5 10 15  
Leu Asn Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:174:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 22 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 1...22

(D) OTHER INFORMATION: All amino acids are in the D-configuration

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:174:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:175:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:175:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Glu Leu  
1 5 10 15  
Leu Asn Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:176:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:176:

Pro Val Leu Glu Leu Trp Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:177:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:177:

Gly Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:178:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:178:

Pro Val Leu Glu Leu Phe Asp Asn Leu Leu Glu Lys Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Arg  
20

(2) INFORMATION FOR SEQ ID NO:179:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:179:

Pro Val Leu Glu Leu Phe Asp Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:180:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:180:

Pro Val Leu Glu Leu Phe Asp Asn Leu Leu Asp Lys Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Arg  
20

(2) INFORMATION FOR SEQ ID NO:181:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:181:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Trp Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:182:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:182:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Lys Leu Leu Glu Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:183:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:183:

Pro Leu Leu Glu Leu Phe Glu Asn Leu Leu Glu Lys Leu Leu Asp Ala  
1 5 10 15  
Leu Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:184:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:184:

Pro Val Leu Glu Leu Phe Leu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
1 5 10 15  
Trp Gln Lys Lys Leu Lys  
20

(2) INFORMATION FOR SEQ ID NO:185:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 19
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 20
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 22
- (D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:185:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Xaa Xaa Leu Xaa  
 20

(2) INFORMATION FOR SEQ ID NO:186:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:186:

Pro Val Leu Glu Leu Phe Glu Gln Leu Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:187:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:187:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Asn Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:188:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:188:

Pro Val Leu Glu Leu Phe Glu Asn Leu Leu Asp Arg Leu Leu Asp Ala  
 1 5 10 15  
 Leu Gln Lys Lys Leu Lys  
 20

(2) INFORMATION FOR SEQ ID NO:189:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids



- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:189:

```

Asp Val Leu Glu Leu Phe Glu Asn Leu Leu Glu Arg Leu Leu Asp Ala
 1           5           10           15
Leu Gln Lys Lys Leu Lys
                20

```

(2) INFORMATION FOR SEQ ID NO:190:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:190:

```

Pro Val Leu Glu Phe Trp Asp Asn Leu Leu Asp Lys Leu Leu Asp Ala
 1           5           10           15
Leu Gln Lys Lys Leu Arg
                20

```

(2) INFORMATION FOR SEQ ID NO:191:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:191:

```

Pro Val Leu Asp Leu Leu Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys
 1           5           10           15
Leu Lys

```

(2) INFORMATION FOR SEQ ID NO:192:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and

C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:192:

Pro Val Leu Asp Leu Phe Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:193:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...18

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:193:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:194:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...18

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:194:

Pro Val Leu Glu Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:195:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

- (B) LOCATION: 1...18  
(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:195:

Pro Val Leu Glu Leu Phe Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:196:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 1...18  
(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:196:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Asn Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:197:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other  
(B) LOCATION: 1...18  
(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:197:

Pro Leu Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:198:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:198:

Gly Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:199:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:199:

Pro Val Leu Asp Leu Phe Arg Glu Leu Trp Glu Glu Leu Lys Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:200:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:200:

Asn Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:201:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:201:

Pro Leu Leu Asp Leu Phe Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:202:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:202:

Pro Ala Leu Glu Leu Phe Lys Asp Leu Leu Glu Glu Leu Arg Gln Lys  
1 5 10 15  
Leu Arg

(2) INFORMATION FOR SEQ ID NO:203:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:203:

Ala Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:204:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:204:

Pro Val Leu Asp Phe Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:205:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:205:

Pro Val Leu Asp Leu Phe Arg Glu Trp Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:206:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None  
(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:206:

Pro Leu Leu Glu Leu Leu Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:207:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...18

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:207:

Pro Val Leu Glu Leu Leu Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:208:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...18

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:208:

Pro Ala Leu Glu Leu Phe Lys Asp Leu Leu Glu Glu Leu Arg Gln Arg  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:209:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:209:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:210:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:210:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:211:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

- (A) NAME/KEY: Other
- (B) LOCATION: 14
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 16
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other
- (B) LOCATION: 18
- (D) OTHER INFORMATION: Xaa = Orn

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:211:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Xaa Gln Xaa  
1 5 10 15  
Leu Xaa

(2) INFORMATION FOR SEQ ID NO:212:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

- (A) NAME/KEY: Other
- (B) LOCATION: 7
- (D) OTHER INFORMATION: Xaa = Orn

- (A) NAME/KEY: Other



(2) INFORMATION FOR SEQ ID NO:215:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:215:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Trp Lys Gln Lys  
1                      5                      10                      15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:216:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:216:

Pro Val Leu Glu Leu Phe Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1                      5                      10                      15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:217:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:217:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Leu Leu Lys Gln Lys  
1                      5                      10                      15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:218:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:218:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Leu Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:219:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:219:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Asn Glu Leu Trp Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:220:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:220:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Gln Lys Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:221:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:221:

Asp Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
 1 5 10 15  
 Leu Lys

(2) INFORMATION FOR SEQ ID NO:222:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:222:

Pro Val Leu Asp Ala Phe Arg Glu Leu Leu Glu Ala Leu Leu Gln Leu  
1 5 10 15  
Lys Lys

(2) INFORMATION FOR SEQ ID NO:223:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:223:

Pro Val Leu Asp Ala Phe Arg Glu Leu Leu Glu Ala Leu Ala Gln Leu  
1 5 10 15  
Lys Lys

(2) INFORMATION FOR SEQ ID NO:224:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:224:

Pro Val Leu Asp Leu Phe Arg Glu Gly Trp Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:225:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:225:

Pro Val Leu Asp Ala Phe Arg Glu Leu Ala Glu Ala Leu Ala Gln Leu  
1 5 10 15

Lys Lys

(2) INFORMATION FOR SEQ ID NO:226:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:226:

Pro Val Leu Asp Ala Phe Arg Glu Leu Gly Glu Ala Leu Leu Gln Leu  
1 5 10 15  
Lys Lys

(2) INFORMATION FOR SEQ ID NO:227:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:227:

Pro Val Leu Asp Leu Phe Arg Glu Leu Gly Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:228:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:228:

Pro Val Leu Asp Leu Phe Arg Glu Gly Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:229:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:229:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Gly Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:230:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:230:

Pro Val Leu Glu Leu Phe Glu Arg Leu Leu Glu Asp Leu Gln Lys Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:231:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:231:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Lys Leu Glu Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:232:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other

(B) LOCATION: 1...18

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:232:

Pro Leu Leu Glu Leu Phe Lys Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15  
Leu Lys

(2) INFORMATION FOR SEQ ID NO:233:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS:

(D) TOPOLOGY:

(ii) MOLECULE TYPE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:233:

This sequence has been intentionally skipped

(2) INFORMATION FOR SEQ ID NO:234:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS:

(D) TOPOLOGY:

(ii) MOLECULE TYPE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:234:

This sequence has been intentionally skipped

(2) INFORMATION FOR SEQ ID NO:235:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS:

(D) TOPOLOGY:

(ii) MOLECULE TYPE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:235:

This sequence has been intentionally skipped

(2) INFORMATION FOR SEQ ID NO:236:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS:

(D) TOPOLOGY:

(ii) MOLECULE TYPE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:236:

This sequence has been intentionally skipped

(2) INFORMATION FOR SEQ ID NO:237:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:237:

Leu Asp Asp Leu Leu Gln Lys Trp Ala Glu Ala Phe Asn Gln Leu Leu  
1 5 10 15  
Lys Lys

(2) INFORMATION FOR SEQ ID NO:238:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:238:

Glu Trp Leu Lys Ala Phe Tyr Glu Lys Val Leu Glu Lys Leu Lys Glu  
1 5 10 15  
Leu Phe

(2) INFORMATION FOR SEQ ID NO:239:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:239:

Glu Trp Leu Glu Ala Phe Tyr Lys Lys Val Leu Glu Lys Leu Lys Glu  
1 5 10 15  
Leu Phe

(2) INFORMATION FOR SEQ ID NO:240:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:240:

Asp Trp Leu Lys Ala Phe Tyr Asp Lys Val Ala Glu Lys Leu Lys Glu  
1 5 10 15  
Ala Phe

(2) INFORMATION FOR SEQ ID NO:241:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:241:

Asp Trp Phe Lys Ala Phe Tyr Asp Lys Val Phe Glu Lys Phe Lys Glu  
1 5 10 15  
Phe Phe

(2) INFORMATION FOR SEQ ID NO:242:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:242:

Gly Ile Lys Lys Phe Leu Gly Ser Ile Trp Lys Phe Ile Lys Ala Phe  
1 5 10 15  
Val Gly

(2) INFORMATION FOR SEQ ID NO:243:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:243:



Asp Trp Phe Lys Ala Phe Tyr Asp Lys Val Ala Glu Lys Phe Lys Glu  
 1 5 10 15  
 Ala Phe

(2) INFORMATION FOR SEQ ID NO:244:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:244:

Asp Trp Leu Lys Ala Phe Tyr Asp Lys Val Ala Glu Lys Leu Lys Glu  
 1 5 10 15  
 Ala Phe

(2) INFORMATION FOR SEQ ID NO:245:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:245:

Asp Trp Leu Lys Ala Phe Tyr Asp Lys Val Phe Glu Lys Phe Lys Glu  
 1 5 10 15  
 Phe Phe

(2) INFORMATION FOR SEQ ID NO:246:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:246:

Glu Trp Leu Glu Ala Phe Tyr Lys Lys Val Leu Glu Lys Leu Lys Glu  
 1 5 10 15  
 Leu Phe

(2) INFORMATION FOR SEQ ID NO:247:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:247:

Asp Trp Phe Lys Ala Phe Tyr Asp Lys Phe Phe Glu Lys Phe Lys Glu  
 1 5 10 15  
 Phe Phe

(2) INFORMATION FOR SEQ ID NO:248:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:248:

Glu Trp Leu Lys Ala Phe Tyr Glu Lys Val Leu Glu Lys Leu Lys Glu  
 1 5 10 15  
 Leu Phe

(2) INFORMATION FOR SEQ ID NO:249:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:249:

Glu Trp Leu Lys Ala Glu Tyr Glu Lys Val Glu Glu Lys Leu Lys Glu  
 1 5 10 15  
 Leu Phe

(2) INFORMATION FOR SEQ ID NO:250:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:250:

Glu Trp Leu Lys Ala Glu Tyr Glu Lys Val Leu Glu Lys Leu Lys Glu  
 1 5 10 15  
 Leu Phe

(2) INFORMATION FOR SEQ ID NO:251:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...18
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:251:

Glu Trp Leu Lys Ala Phe Tyr Lys Lys Val Leu Glu Lys Leu Lys Glu  
1 5 10 15  
Leu Phe

(2) INFORMATION FOR SEQ ID NO:252:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...15
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:252:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Gln Lys Leu Lys  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:253:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...16
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:253:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Glu Leu Lys Gln Lys  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:254:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...16
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:254:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Lys Leu Lys Gln Lys  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:255:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...15
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:255:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Lys Leu Gln Lys  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:256:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...16
- (D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:256:

Pro Val Leu Asp Leu Phe Arg Glu Leu Leu Glu Ala Leu Lys Gln Lys  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:257:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...16

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:257:

Pro	Val	Leu	Asp	Leu	Phe	Glu	Asn	Leu	Leu	Glu	Arg	Leu	Lys	Gln	Lys
1				5					10					15	

(2) INFORMATION FOR SEQ ID NO:258:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...16

(D) OTHER INFORMATION: N-terminal acetylated and  
C-terminal amidated

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:258:

Pro	Val	Leu	Asp	Leu	Phe	Arg	Glu	Leu	Leu	Asn	Glu	Leu	Lys	Gln	Lys
1				5					10					15	